Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

MOLLUSCA FROM CENTRAL AMERICA AND MEXICO.

BY HENRY A. PILSBRY.

The following descriptions and notes are in continuation of those published in these PROCEEDINGS for 1919, pp. 212–223.

Further comparisons have shown that *Donax mediamericana* (*op. cit.* p. 222) is merely a form of *D. striata*. The differences depended upon are inconstant.

Scolodonta zeteki new species. Fig. 1.

The shell is discoidal, broadly umbilicate, almost flat above, thin, isabella colored, slightly translucent. The surface is glossy, finely striate above, more weakly so below. There are six narrowly coiled, slowly increasing, convex whorls, the last, at the aperture, nearly twice the width of the preceding, rounded at periphery and base, not descending in front. The umbilicus is conic, showing all of the whorls. The aperture is slightly oblique, lunate, higher than wide. Peristome thin and simple, the widely separated terminations joined by a very thin callus.

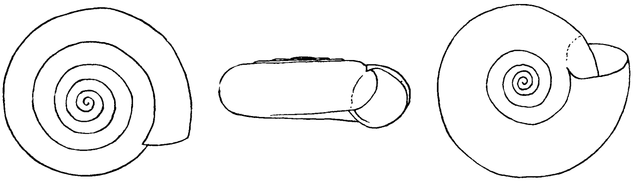

Fig. 1.—*Scolodonta zeteki.*

Alt. 4, diam. 10.9 mm.; 6 whorls. Gatun.

Alt. 3.4, diam. 9.1 mm.; 5.5 whorls. Gamboa.

Canal Zone: Gatun (D. E. Harrower); Gamboa (James Zetek).

Type No. 114,079, A. N. S. P.

Readily recognized by its discoidal form. There is a very closely related species in the collection from Venezuela without definite locality (R. Swift coll.; No. 23,775), whitish, with the whorls a trifle less closely coiled.

Thysanophora textilis new species. Fig. 2.

The shell is umbilicate, conoid, the height and diameter about equal, pale brown. Sculpture of extremely low, subregularly spaced longitudinal waves, over all a microscopic granulation produced by the intersection of very minute striae and equally close spiral lines, giving the appearance of a fine woven material. First 1⅓ whorls smooth. The whorls are very strongly convex. Suture very deeply impressed. Aperture somewhat semilunar, oblique, outer lip thin and simple, the columellar margin broadly dilated.

Alt. 1.8, diam. 1.8 mm.; 4 whorls.

Alt. 1.95, diam. 1.95 mm.; 4¼ whorls.

Chamá, Guatemala, A. A. Hinkley.

The microscopic sculpture is somewhat like that of the apex of *Drymaeus*, and unlike any *Thysanophora* I have examined. Whether the species belongs to *Thysanophora* or to *Pupisoma* is an open question, but the shape is rather more like the former.

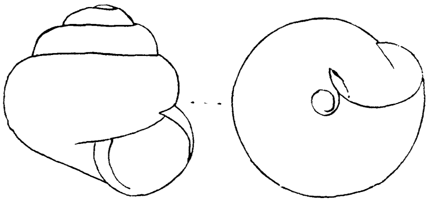

Fig. 2.—*Thysanophora textilis.*

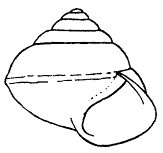

Fig. 3.—*Helicina oaxacana.*

Helicina oaxacana new species. Fig. 3.

The shell is a little wider than high, with conic spire and bluntly carinate periphery, whitish, not glossy. Sculpture of fine growth-striae and fine, indistinct, protractive wrinkles, visible in places only. The whorls are rather strongly convex, the last having a blunt median keel, convex above and at the base. The aperture is semicircular, oblique. Outer lip is moderately expanded. Columella strongly concave on its ventral side, terminating in a projecting tubercle. Callus small, a groove behind the columellar side.

Alt. 4, diam. 4.5 mm.; 4¾ whorls.

Puerto Angel, Oaxaca, Mexico. C. R. Orcutt, 1910. Type No. 112,572, A. N. S. P.

This species appears related to *H. raresulcata* of Vera Cruz, but besides the somewhat diverse sculpture it differs by the angular periphery. The same character differentiates it easily from other small species of the region.

Eutrochatella microdina chryseis (Tristr.).

Two specimens from Chamá measure: Alt. 4.2, diam. 3.83 mm., and Alt. 3.55, diam. 3.45 mm., respectively.

The color is barium yellow or between that and amber yellow. The size is about that given for *E. microdina,* but the proportions are between *microdina,* in which the alt. and diam. are 4 mm., and *chryseis,* alt. 4, diam. 3 mm. Perhaps *chryseis* may better be ranked as a subspecies of *E. microdina.*

In this connection it may be noted that Wagner in his monograph places *microdina* in both *Eutrochatella* (p. 138) and *Helicina* (p. 318). The species described at p. 318 is certainly not Morelet's species, which has been figured from author's specimens by Fischer and Crosse.

E. microdina, of which I have three from Morelet, is covered with excrement when alive. It is paler than *chryseis,* with the spire slightly lower, tapering with a wider angle, as Fischer and Crosse have pointed out.

E. simpsoni Ancey, from Utila Island, Honduras, is closely related, but the whorls project more prominently at the periphery, and the size is smaller. One of the original lot was figured in these PROCEEDINGS 1903, pl. 49, fig. 4.

These three forms belonging to the subgenus *Pyrgodomus* Crosse and Fischer, are now for the first time brought together.

COCHLIOPA Stimpson.

As this genus has doubled in number of species since the publication of the "Biologia Centrali-Americana" a catalogue of the species may be of use:

Cochliopa riograndensis Pils. & Ferr.

Proc. A. N. S. Phila., 1906, p. 171, pl. 9, figs. 10–13. Nautilus, XXIII, p. 99.

Rio Grande (Ferriss and Pilsbry) to the Panuco River tributaries (Hinkley).

Cochliopa compacta Pils,

Nautilus, XXIII, Jan. 1910, p. 99, pl. 9, figs. 4. 5.

Choy River, State of San Luis Potosi (Hinkley).

Cochliopa picta Pils.

Nautilus, XXIII, Jan. 1910, p. 100, pl. 9, figs. 1, 2.

Choy and Ganina Rivers, State of San Luis Potosi (Hinkley).

Cochliopa guatemalensis (Morelet)

Valvata guatemalensis Morelet, Testacea Novissima, etc., II, 1851, p. 22. Fischer and Crosse, Miss. Sci. Mex., Moll. II, p. 302, pl. 48, figs. 2–2*b*; pl. 50, figs. 1–1*b*.
Cochliopa guatemalensis (Morel.) v. Martens, Biologia, p. 428.

Rio Michatoya near Istapa, southern Guatemala.

Cochliopa rowelli (Tryon).

Amnicola rowelli Tryon, Proc. A. N. S. Phila., 1863, p. 147, pl. 1, figs. 8, 9.
Cochliopa rowelli Tryon, Stimpson, Smithsonian Misc. Coll. No. 201, 1865, p. 50. W. G. Binney, Land and Freshwater Shells of N. A., III, p. 73, figs. 144. Pilsbry, Nautilus XIX, 1905, p. 91. J. Rowell, Nautilus, XX, p. 10.

Panama (W. Newcomb); Rio Matasnillo, Las Sabanas, Panama (J. Zetek).

This species has been omitted from works on Central American mollusks because it was reported from California by the Rev. J. Rowell, who collected the original specimens. No other Californian conchologist has found it in the places he mentioned, but it has been taken in Panama by Dr. Wesley Newcomb many years ago, and recently by Mr. James Zetek. There can be no reasonable doubt that Mr. Rowell was mistaken in the locality, and really picked it up on his way to California by the Panama route.

Cochliopa tryoniana Pils.

Nautilus, IV, 1890, p. 52. Proc. A. N. S. Phila., 1891, p. 331, pl. 15, fig. 12. Biologia, p. 428, pl. 33, figs. 9–9*c*.

Western Nicaragua, southwestern Costa Rica.

Cochliopa trochulus Martens.

Biologia, p. 429, pl. 23, fig. 7.

Southwestern Costa Rica (Pittier and Biolley) to Panama (James Zetek).

Cochliopa infundibulum Martens.

Biologia, p. 429, pl. 23, fig. 3.

Guatemala.

Another related species was taken at Esmeralda, Rio Dulce, Guatemala, by Mr. Hinkley. This, I understand, will soon be described, making in all twelve species of *Cochliopa*.

Cochliopa hinkleyi new species. Fig. 4.

The shell is minute, *planorboid*, with a very wide, shallow umbilicus and a *slightly concave spire*. Color brownish corneous. The three whorls are oval in section, the last descending slowly and at the end, only very shortly in contact with the preceding. Sculpture of numerous subequal, rather sharp spiral threads separated by wider intervals, a narrow plain band below the suture and a wider one within the umbilicus. The aperture is slightly oblique, rounded-oval, the peristome very shortly adnate in adults (or sometimes very shortly free, continuous).

Alt. 0.75, diam. 1.75 mm.

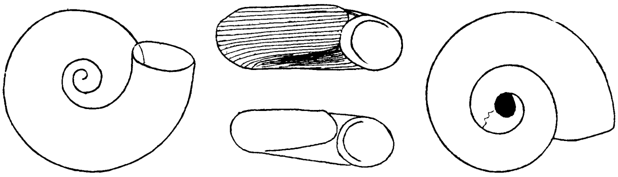

Fig. 4.—*Cochliopa hinkleyi.*

Lake Izabal near Jocolo, Guatemala, A. A. Hinkley.

With the sculpture of *C. guatemalensis*, this species has the shape of a small *Planorbis* of the *parvus* group. In most adult shells the inner whorls are eroded away, leaving a hole through the center of the disc, as in the right hand figure. Sometimes the last whorl is shortly free, as in the lower figure.

Cochliopa minor new species. Fig. 5.

The shell is depressed, umbilicate (the umbilicus rapidly enlarging in the last whorl, contained five times in the diameter), solid, very pale brownish. The spire is very low conic. The first of the four whorls is smooth; spiral ridges set in on the second; on the last there are about 23 of these ridges, nearly equal, and a little narrower than the concave intervals; the latter showing microscopic growth-lines and traces of fine spirals in some places. The last whorl is rounded peripherally, and descends slightly to the aperture. Aperture is strongly oblique, rounded. Peristome blunt, the margins joined by a heavy parietal callus.

Alt. 1.2, diam. 2.1 mm.; 4 whorls.

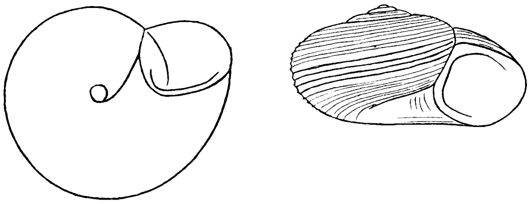

Fig. 5.—*Cochliopa minor.*

Polvon, Nicaragua. Type and paratypes No. 58,286, A. N. S. P., collected by the McNeil Expedition.

These specimens were formerly identified by the writer as *C. guatemalensis* (Morelet). The latter is much larger, diameter 3.5 mm., and came from the Michatoya River near Istopa, in southern Guatemala.

The teeth of the radula have denticles according to the formula $\frac{4.1.4}{3\text{--}3}$, 2.1.3, 13, ∞. Those of the outer uncinus are very minute, not clearly seen. The lateral tooth has the boss and socket structure of the broad body, as in many other Amnicolidae.

Cochliopa izabal new species. Fig. 6.

The shell is conic, umbilicate (umbilicus narrow, rapidly widening in the last half whorl), rather thin; very pale brownish-gray; smooth except for faint traces of spiral striae, a little stronger near the umbilicus and sometimes on the penult whorl. The spire is elevated, the early whorls eroded. The whorls are strongly convex, the last everywhere rounded. The aperture is moderately oblique, angular above, otherwise rounded. The outer lip is thin; columella concave, thickened, continued in a callus across the parietal wall.

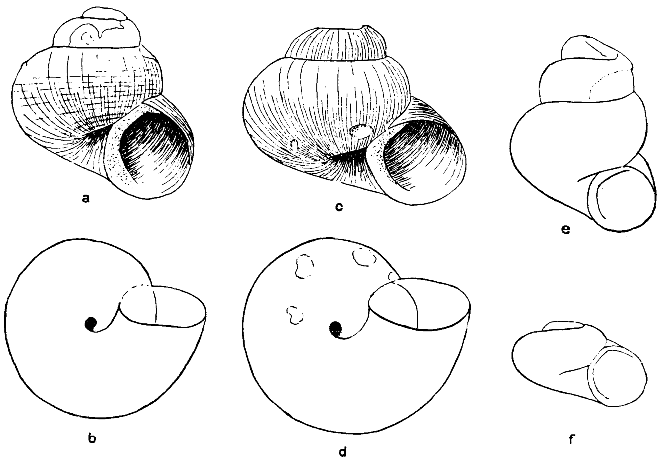

Fig. 6.—*Cocnliopa izabal.*

Alt. 1.75, diam. 1.9 mm. Type, fig. 5 *a, b.*

Alt. 1.7, diam. 2.15 mm. Fig. 5 *c, d.*

Alt. 1.85, diam. 1.5 mm. Fig. 5 *e.*

Lake Izabal near Jocolo, Guatemala.

The nearly smooth form is selected as typical because it predominates in the lot collected. In some examples no spiral sculpture is visible; others are slightly to distinctly striate. The spire is always eroded, even in the smallest taken, diameter 1.3 mm., of 3 whorls (fig. 5*f*), but the summit would be obtuse if perfect, the early whorls increasing the shell rapidly in diameter. At this stage it has the normal shape of *Cochliopa*. Later the whorls descend more rapidly, giving it a somewhat Amnicoloid outline. Fig. 5*e* represents the narrowest specimen found.

Mutation *perstriata* (Fig. 7). Occurring with the smooth and moderately striate specimens there are a few having many strong spiral threads at all post-embryonic stages of growth, as in *C. guatemalensis*. The largest specimens are of this kind. Alt. 2.7, diam. 2.75 mm.

This species differs conspicuously from *C. guatemalensis* (Morel.) by its elevated spire. A large series was collected.

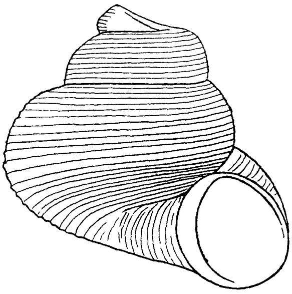

Fig. 7.—*Cochliopa izabal* mut. *perstriata.*

NAMES APPLIED TO PACHYCHILUS.

Pachychilus I. and H. C. Lea, Proc. Zool. Soc. London 1850, p. 179, for *P. cummingii* Lea [= *graphium* Morel.]. Not *Pachychila* Eschscholtz, Zoologischer Atlas, 4tes Heft, 1831, p. 5 (Coleoptera).

Cercimelania Fischer and Crosse, Mus. Sci. an Mex., Moll. terr. et Fluv., ii, p. 327, 1892, type *P. liebmanni* Phil.

Glyptomelania F. and C., op. cit. p. 328, type *P. glaphyrus* Morel.

Oxymelania F. and C., op. cit. p. 328, type *P. schiedeanus* Phil.

Sphaeromelania Rovereto, Atti della Societá Ligustica di Sci. Nat. e Geogr., X, 1899, p. 109, new name for *Pachychilus* Lea.

The name to be used for this genus depends upon whether *Pachychilus* and *Pachychila* are considered to be different names. They are of course of identical derivation; so are Louis and Louise, Francis and Frances, which serve very well. Until there is a definite ruling by the International Commission, it may be as well to continue to use the familiar *Pachychilus.*

Those who consider *-us* and *-a* names identical can adopt *Cercimelania,* type *liebmanni* Phil., proposed as a subgenus of *Pachychilus.*